

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number  
**WO 2005/014977 A1**

(51) International Patent Classification<sup>7</sup>: **E21B 49/08,**  
G01N 27/26

(21) International Application Number:  
PCT/GB2004/003040

(22) International Filing Date: 12 July 2004 (12.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0317260.8 24 July 2003 (24.07.2003) GB

(71) Applicants (for all designated States except US):  
**SCHLUMBERGER HOLDINGS LIMITED**; PO Box  
71, Craigmuir Chambers, Road Twon, Tortola (VG).  
**SCHLUMBERGER CANADA LIMITED** [CA/CA];  
525 - 3rd Avenue S.W., Calgary, Alberta T2P 0G4  
(CA). **SERVICES PETROLIERS SCHLUMBERGER**  
[FR/FR]; 42, rue Saint Dominique, F-75007 Paris (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **JIANG, Li**  
[GB/GB]; 47 Almoners Avenue, Cambridge CB1 8NZ

(GB). **JONES, Timothy, Gareth, John** [GB/GB]; 16  
Denmark Road, Cottenham, Cambridgeshire CB4 8QS  
(GB). **MEREDITH, Andrew** [GB/GB]; 63 Thorpe Way,  
Cambridge CB5 8UJ (GB). **PAGELS, Markus** [DE/GB];  
42 Brinkman Road, Linton, Cambridgeshire CB1 6XF  
(GB). **DE SILVA, Amilra, Prasanna** [GB/GB]; 11  
Lucerne Parade, Belfast BT9 5FT (GB).

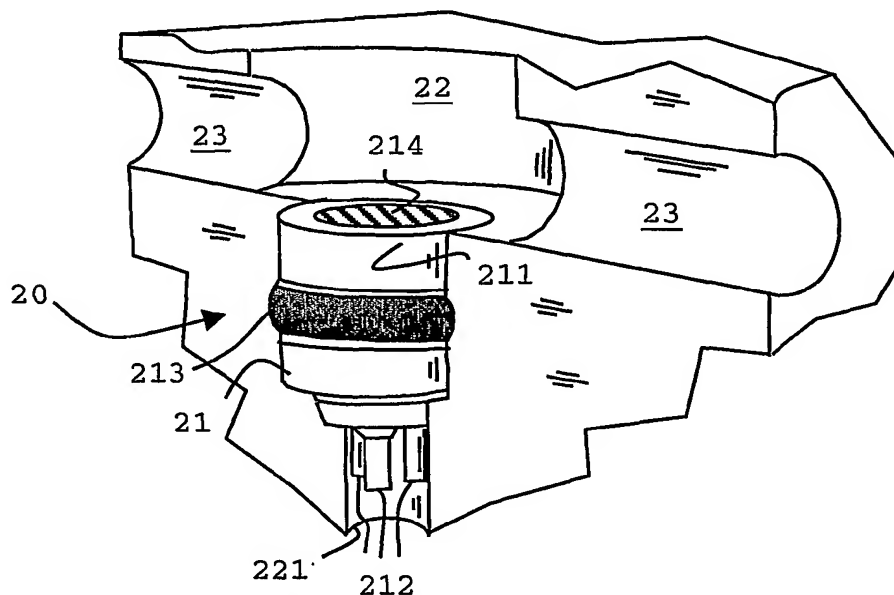
(74) Agent: **MIRZA, Akram, Karim**; Intellectual Property  
Law Department, Schlumberger Cambridge Research Lim-  
ited, High Cross, Madingley Road, Cambridge CB3 0EL  
(GB).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR MEASURING CONCENTRATIONS OF SCALE-FORMING IONS



(57) Abstract: This invention relates to methods and apparatus for determination of ion concentrations, particularly in downhole water from hydrocarbon wells, aquifers etc. It is useful in a wide range of applications, including predicting the formation of scale and fingerprinting waters from different sources. More particularly, the invention relates to the use of ligands whose electronic configuration is altered by the binding of the scaling ions within a water sample. These alterations are detected, for example by electrochemical means, and are indicative of the concentration of scaling ions in the sample.

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GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*